IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

ALFT et al.

Prior Examiner:

Pezzuto, Robert E.

Prior App Serial

10/304,185

Prior Group Art Unit:

3671

No.

Divisional Filed:

April 2, 2004

Docket No.:

VERA.024DIV3

Title:

EARTH PENETRATING APPARATUS AND METHOD EMPLOYING

RADAR IMAGING AND RATE SENSING

CERTIFICATE UNDER 37 CFR 1.10:

"Express Mail" mailing label number: EV 381020258 US

Date of Deposit: April 2, 2004

I hereby certify that this paper or fee is being deposited with the U.S. Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to

Commissioner for Patents, MAIL STOP PATENT APPLICATION, P.O. Box 1450,

Alexandria, VA 22313-1450.

elly S. Waltigney

INFORMATION DISCLOSURE STATEMENT (37 C.F.R. §1.97(b))

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

With regard to the above-identified application, the items of information listed on the enclosed Form(s) 1449 are brought to the attention of the Examiner.

This statement should be considered because it is submitted either within three months of the filing date or before the first Office Action of the above-identified application. Accordingly, no fee is due for consideration of the items listed on the enclosed Form(s) 1449.

In accordance with 37 C.F.R. § 1.98(d), a copy of each document or other information listed on the enclosed Form(s) 1449 was previously provided, or cited in a PTO-Form 892 communication in U.S. patent application serial no. 10/304,185 filed on November 25, 2002. This application is a divisional of the aforementioned prior application and relies thereon for an earlier effective filing date under 35 U.S.C. 120.

Docket No. VERA.024DIV3

Appl. Filed: April 2, 2004

Serial No.: Unassigned

Information Disclosure Statement

Accordingly, copies of the references listed on the Form(s) 1449 are not submitted

herewith.

Please note that any notations or markings on the attached documents do not

reflect particular relevance, or lack thereof, to the present application, nor were they

necessarily made by anyone affiliated with the prosecution of the present application.

No representation is made that a reference is "prior art" within the meaning of 35

U.S.C. §§ 102 and 103 and Applicants reserve the right, pursuant to 37 C.F.R. § 1.131

or otherwise, to establish that the reference(s) are not "prior art." Moreover, Applicants

do not represent that a reference has been thoroughly reviewed or that any relevance

of any portion of a reference is intended.

Consideration of the items listed is respectfully requested. Pursuant to the

provisions of M.P.E.P. 609, it is requested that the Examiner return a copy of the

attached Form(s) 1449, marked as being considered and initialed by the Examiner, to

the undersigned with the next official communication.

Respectfully submitted,

Crawford Maunu PLLC

1270 Northland Drive

Suite 390

St. Paul, MN 55120

651/686-6633

Date: April 2, 2004

Reg. No. 38,491

2

Date Mailed: April 2, 2004 Sheet 1 of 4

INFORMATION DISCLOSURE STATEMENT

PTO Form 1449

Docket Number VERA.024DIV3	Serial Number Unassigned	
Applicant(s) ALFT et al.	Prior Group Art Unit 3671	
Filing Date	As was filed in Parent Application	
April 2, 2004	10/304,185 11/25/2002	

			U.S. PATENT DOCUMENTS	·		
EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	3,845,569	11/05/74	Otte et al.			-
	4,003,017	01/11/77	Bailey			·············-
	4,021,774	05/03/77	Asmundsson et al.			· · · · · · · · · · · · · · · · · · ·
	4,071,959	02/07/78	Russell et al.			
	4,297,790	11/03/81	Van Steenwyk et al.			
-	4,302,886	12/01/81	Starr			
	4,318,300	03/09/82	Maughmer			
	4,454,756	06/19/84	Sharp et al.			
	4,503,718	03/12/85	Quermann	-		
	4,598,585	07/08/86	Boxenhorn			
	4,675,820	06/23/87	Smith et al.			
	4,711,125	12/08/87	Morrison	-		
	4,739,841	04/26/88	Das			
	4,823,626	04/25/89	Hartmann et al.			
	4,907,658	03/13/90	Stangl et al.			
	4,909,336	03/20/90	Brown et al.			
	4,926,696	05/22/90	Haritonidis et al.	_		
	4,945,765	08/07/90	Roszhart			
	4,987,684	01/29/91	Andreas et al.			
	4,996,627	02/26/91	Zias et al.			
	5,012,424	04/30/91	Dodson			
	5,090,254	02/25/92	Guckel et al.			
	5,112,126	05/12/92	Graebner			
	5,182,516	01/26/93	Ward et al.			
	5,188,983	02/23/93	Guckel et al.			
	5,189,777	02/23/93	Guckel et al.			
	5,194,872	03/16/93	Musoff et al.			
	5,220,963	06/22/93	Patton			
	5,233,871	08/10/93	Schwarz et al.			
	5,332,469	07/26/94	Mastrangelo			

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FXA	. IVI	ич	FК

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.

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PTO Form 1449	Applicant(s) ALFT et al.	Prior Group Art Unit 3671
	Filing Date April 2, 2004	As was filed in Parent Application 10/304,185 11/25/2002

EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
1111776	5,337,002	08/09/94	Mercer	<u> </u>		TAT NOT NAME
	5,338,929	08/16/94	Douma et al.			
	5,392,650	02/28/93	O'Brien et al.			
	5,394,950	03/07/95	Gardes			
	5,410,487	04/25/95	Okayama et al.			
	5,422,817	06/06/95	Tazartes et al.			
	5,438,231	01/08/95	Khoshnevisan			<u> </u>
	5,456,110	10/10/95	Hulsing, II			
	5,467,832	11/21/95	Orban et al.			
	5,469,155	11/21/95	Archambeault et al.			 -
	5,515,724	05/14/96	Greiff et al.			
,	5,544,055	08/06/96	Cooper			
	5,556,253	09/17/96	Rozendaal et al.			
	5,560,437	10/01/96	Dickel et al.			
	5,566,448	10/1996	Tanigushi et al.			
.	5,585,726	12/17/96	Chau			
	5,602,541	02/11/97	Comeau et al.			
	5,603,386	02/18/97	Webster			
 	5,608,162	03/04/97	Но			
	5,627,314	05/06/97	Hulsing, II			
	5,633,589	05/27/97	Mercer			
	5,646,611	07/08/97	Dailey et al.			
	5,652,617	07/29/97	Barbour		,	
	5,656,777	08/12/97	Petri et al.			
	5,657,826	08/19/97	Kuckes			
	5,659,195	08/19/97	Kaiser et al.			
	5,659,985	08/26/97	Stump			
	5,668,319	09/16/97	Garabedian			
	5,678,643	10/1997	Robbins et al.			

EXAMINER	DATE CONSIDERED
EXAMINER: Initial if reference considered, whether or not citation is in conform	nance with MPEP 600: draw line through citation if not in conformance and not

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Date Mailed: April 2, 2004 Sheet 3 of 4

INFORMATION DISCLOSURE STATEMENT	Docket Number VERA.024DIV3	Serial Number Unassigned
PTO Form 1449	Applicant(s) ALFT et al.	Prior Group Art Unit 3671
P10 F0fm 1449	Filing Date April 2, 2004	As was filed in Parent Application

EXAMINER	DOCUMENT NO.	DATE	U.S. PATENT DOCUMENT	CLASS	SUBCLASS	FILING DATE
INITIAL				\$2.65	30202.00	IF APPROPRIATE
	5,698,981	12/16/97	Mercer			
	5,704,142	01/06/98	Stump			
	5,719,772	02/17/98	Benes			
	5,720,354	02/24/98	Stump et al.			***
<u> </u>	5,780,742	07/14/98	Burns et al.		-	
•	5,796,001	08/18/98	Greiff et al.			
	5,805,110	09/08/98	McEwan			
	5,812,068	09/1998	Wisler et al.			
	5,817,942	10/06/98	Greiff			· · · · · · · · · · · · · · · · · · ·
	5,818,227	10/06/98	Payne et al.			
	5,828,980	10/27/98	Tazartes et al.			
	5,831,164	11/03/98	Reddi et al.			
	5,842,149	11/1998	Harrell et al.			
	5,867,117	02/02/99	Gogineni et al.			
	5,869,760	02/09/99	Geen			
	5,886,249	03/23/99	Bonne et al.			
	5,890,093	03/30/99	Mark et al.			
 _	5,904,210	05/18/99	Stump et al.			
	5,915,275	06/22/99	Cardarelli et al.			
	6,021,377	02/2000	Dubinshy et al.			
	6,088,294	07/2000	Leggett, III et al.			
	6,092,610	07/2000	Kosmala et al.			
	I nonumer =	T	FOREIGN PATENT DOCUME			
<u> </u>	DOCUMENT NO. WO 00 17487 A	03/30/00	COUNTRY	CLASS	SUBCLASS	TRANSLATION
	WO 00/28188	05/18/00	wo			
			S (Including Author, Title, Dating GyroO," MicroSensors, Ir			

EXAMINER	DATE CONSIDERED
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U.S. PATENT DOCUMENTS						
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	5,937,954	08/17/1999	Puttmann et al.			
"	6,012,536	01/11/2000	Puttmann et al.			
	6,199,643	03/13/2001	Hesse et al.			
	6,389,360	05/14/2002	Alft et al.			
	6,206,108	03-2001	MacDonald et al.	175	24	
	6,230,822	05-2001	Sullivan et al.	175	40	

EXAMINER

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